

DIVISION 8
DOORS AND WINDOWS

SECTION 08100: METAL DOORS AND FRAMES

I. GENERAL (not used)

II. MATERIALS

- A. Interior door jambs: 16 gauge Grade III extra heavy duty pre-finished steel. Use knockdown frames only when required to fit into existing construction.
- B. Exterior door jambs: Welded, pre-assembled, 14 gauge, Grade III, extra heavy duty *with G90 Zinc coating complying with ASTM A525.*
- C. *Exterior hollow steel doors: 16 gauge Grade III extra heavy duty pre-finished steel with G90 zinc coating complying with ASTM A525.*

III. EXECUTION

- A. Glazing stops are not to be removable from exterior on any locked door or window.

SECTION 08200: WOOD AND PLASTIC DOOR STANDARDS

I. GENERAL

- A. Before delivery, seal all six surfaces with an approved sealer or the specified finish coat. Protect the doors from the weather during delivery and store in a dry location on the job.

II. MATERIALS

- A. Exterior Doors: Shall be 1-3/4 inches thick, solid staved wood core, flush type. Particle board core wood doors are not allowed for exterior locations. *Provide door top weatherstripping cap or equivalent means of protecting top edge of exterior doors. Stiles and rails are to be bonded to core.*
- B. *Interior Doors: Solid core construction. 1 3/4" thick min. Stiles and rails are to be bonded to core.*

III. EXECUTION

- A. General: All edges of all wood doors, interior and exterior, must be sealed moisture / vapor-tight after final edge trimming.
- B. Painting (as per Section 09900) is to occur in the specified number of coats at all bottom, top, and side edges of all wood doors.

SECTION 08300: SPECIAL DOORS

I. GENERAL

- A. Motorized sliding doors (i.e. WON doors) shall not be utilized due to long term maintenance concerns.*

II. MATERIALS (not used)

III. EXECUTION (not used)

SECTION 08500: METAL WINDOW STANDARDS

I. GENERAL

- A. Custom colors and sizes are discouraged. Use standard manufacturers' color selection and sizes to minimize future costs for window replacement or additions to a building. Verify any custom size or color windows with the Project Manager.
- B. Pivot windows which allow cleaning from the building interior are preferred.

II. MATERIALS (not used)

III. EXECUTION

- A. If any modifications to standard aluminum frame windows are proposed, such as cutting off nailing fins, etc., for any particular architectural reason, the Executive Architect must obtain the following from all proposed window manufacturers as listed in the specifications:
 - 1. A declaration, written on the window manufacturer's letterhead and signed by an authorized company representative, that the standard warranty for the window will be honored by the company, including the proposed modifications to the window.
 - 2. A standard set of instructions, included with the above manufacturers' declaration as described above, that lists any and all additional instructions necessary to properly install the modified window in a long-lasting, watertight installation.
 - 3. Deliver both the manufacturers' amended guarantee, and the modified set of installation instructions to the Project Manager for appropriate verification and discussion prior to 90% Construction Document completion.
 - 4. Specifications must indicate that any substitute manufacturer ("or equal") shall provide equivalent documents.

SECTION 08700: HARDWARE STANDARDS

I. GENERAL

- A. *All keys to campus buildings will be fabricated either by the UCSC Lockshop or by contractors providing new cylinders or locksets in conjunction with projects managed by Physical Planning and Construction or Physical Plant. Hardware replacement projects shall comply with Campus Standards.*
- B. *Keying Plans shall prioritize security (for overall building access, for building contents and property, for building users and departments) over the convenience of any individual users.*
- C. *Housing areas within colleges shall be keyed to a separate access system per UCSC Student Housing Security Standards (see related documents) and kept separate from all state-supported areas. Outside vendor areas within Housing areas shall not provide access to residential areas, although they may be under the same GGM or GM.*
- D. *Outside Vendors: All vendor areas (such as Food Service kitchens and offices, Coffeeshops or other vendor restaurant areas, storage rooms, custodial closets in dining rooms, Bookstore areas, etc.) shall be keyed to a separate individual change key that can be opened by the GGM or GM of a building, unless special approval is given by Housing, Police and Fire Departments to provide off-master access for a particular vendor.*
- E. *Availability of All Building Areas: No part of any building shall be keyed off-master unless specifically approved by the Campus Police Chief and Campus Fire Marshal.*
- F. *Key pad locks or other systems in lieu of conventional key access may be developed through the UCSC lockshop, providing all access systems have a key over-ride conforming to the existing building GGM or GM.*
- G. *All mechanical rooms, electrical rooms, elevator rooms, custodial spaces, and Physical Plant storage areas shall be keyed to the existing campuswide keying system for such spaces.*
- H. *All building communications closets solely under the control of CATS shall be keyed to the existing campuswide keying system for such spaces.*
- I. *Keys and Keying: Key schedule shall be developed by the Project Manager, building sponsor(s) and Campus Lockshop in conformance with the Residential Key Control Policy, the UCSC Student Housing Security Standards, and Key Control and Access Policy HS-300-1 (see related documents), and shall be finalized before hardware is ordered.*
 - 1. Hardware manufacturers shall provide for great grand master, grand master, master key, and key alike or key different as directed by University's representative.
 - 2. Hardware manufacturers shall key and register lock cylinders as directed by the University's Representative. Key biting schedules shall be reviewed by Project Manager and UCSC Lockshop before keying.
 - 3. Provide construction cylinders for doors requiring locking during major new construction; construction cylinders shall be removed and replaced by Contractor just prior to user occupancy. Verify with Project Manager.

4. Submit keys for final use to Owner; typical number of keys 5 per student room and 6 per academic rooms:

*10 grand master keys
100 building entry keys
5 per single residence hall room, office, lab
7 per double residence hall room*

Verify all key quantities with University's Representative. See Residential Key Control Policy (see related documents) for specific requirements.

5. All keys are to be shipped directly to the UCSC Lockshop from the manufacturer.
6. *For alterations and additions to existing facilities, obtain key section and other pertinent information from UCSC Lockshop.*
 - a. *Housing: New installations to be Schlage designated UCSC Primus key section with custom stamped bow, to match existing keying system and Housing security policy.*
- J. Additions to or remodels of existing buildings shall provide hardware to match existing brands and keyways. Verify with UCSC Lockshop.
- K. Unless specifically required, avoid using doors over 36" wide at high traffic areas, to minimize hinge maintenance problems.
- L. *Provide 5% extra door hardware for projects requiring more than 20 similar locksets.*

II. MATERIALS

- A. Hinges and Butts: comply with the following unless otherwise indicated.
 1. Preferred manufacturers: Lawrence, *McKinney*, LCN.
 2. Provide "continuous gear type" hinge for all exterior, heavy usage doors. *For retrofits, verify applicability of such hinges for each location with Project Manager.*
 - a. Manufacturer: Roton (*No substitutions*)
 3. For doors 1-3/8" thick: 4" size.
 4. For doors 1-3/4" thick and up to 41" wide: 4 1/2" size, heavy weight *or extra heavy weight*.
 5. Provide widths sufficient to clear trim projection when door swings 180 degrees.
 6. Provide 3 hinges to 90" high, 4 hinges to 120" high for each door leaf, unless otherwise indicated.
 7. Provide nonferrous butts with non-removable pins at exterior, outswinging doors; stainless steel butts at labeled doors.
 8. Provide concealed bearing or oilite bearing hinges at doors with closers.
- B. Locksets and Latchsets

1. Preferred Manufacturers:
 - a. Schlage, Falcon, *Sargent*.
 - b. Housing: Schlage, to match existing. Verify with Project Manager.
 2. Interior parts of steel and zinc-dichromate plating to resist rusting and corrosion; do not supply plastic, die-cast or aluminum mechanisms.
 3. Types
 - a. Typical mortise: Schlage, Falcon, *Sargent*. *Provide free spinning cylinder security collars.*
 - b. Typical cylindrical: Schlage Lock Co. Series D Sparta, Falcon Series T, *Sargent* Series 10.
 - c. *Residential: Schlage L Series preferred for all heavy usage locations; verify with Project Manager. Typically use mortise lockset in all new construction. Use cylindrical only when retrofit conditions require.*
 - d. Provide cylinders of extruded brass bar material. *Housing: Interchangeable core cylinders new installations to be Schlage Primus (high security cylinders, 20-700 Series Level 3 Quad), existing installations to match college keyway.)*
 4. Design:
 - a. *Mortise* : Schlage #17 lever, Falcon, *Sargent*.
 - b. *Cylindrical* : Schlage Sparta lever #17, preferred over Rhodes design due to reduced potential for hooking onto handle with stiff wire from beneath door.
 5. Backset: 2-3/4"
 6. Strikes: Furnish standard strikes with extended lips where required to protect trim from being marred by latch bolt; verify type of cutouts provided in metal frames.
 7. *Deadbolts: Schlage Lock Co. Series B, Falcon , Sargent, Grade 1, heavy duty or extra heavy duty.*
- D. Closers
1. Preferred Manufacturers: LCN , Norton, *Sargent*.
 2. When existing retrofit conditions require, use a power-assisted closer.
 - a. Preferred manufacturers: LCN "Auto Equalizer," *Horton Automatics*, or equal.
 3. Full rack and pinion type with steel spring and non-freezing hydraulic liquid.
 4. Provide controls for regulating closing, latching, speeds and back check.

5. Arm types shall suit individual conditions, as approved. Parallel arm closers shall be used wherever feasible, at reverse bevel doors, and where doors swing full 180 degrees. *Provide heavy duty arms on all high use doors.*
 6. Mount closers on room side or pull side unless otherwise indicated
 7. Sizing: shall be adjustable to following maximum door operating pressures:
 - a. Interior Doors: 5 pounds.
 - b. Exterior Doors: 8.5 pounds.
 - c. Fire Doors: 15 pounds.
 8. All labeled doors self-closing *and latching*.
 9. Closers shall be adjusted by the Contractor.
 10. Design: ANSI Modern Type with Cover, unless otherwise indicated
 11. The sweep period of the closer shall be adjusted so that, from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the leading edge of the door.
- E. Floor Closers
1. Manufacturers: Rixon.
- F. Panic Hardware
1. Preferred manufacturers:
 - a. Fire-rated: Von Duprin #99 series exit device with 992L outside trim, *no substitutions.*
 - b. Non fire-rated: Von Duprin #99 series exit device with 99NL outside trim, *no substitutions.*
 2. To reduce maintenance costs, single point exit devices are preferred where possible. This configuration requires the use of a removable mullion when a pair of doors is specified, *but eliminates the need for a coordinator.* (Verify with Project Manager.)
- G. Door Stops: Provide for each door. Door stops must be rubber-cushioned and solidly affixed in order to prevent damage from door opening.
- H. *Gaskets, smoke seals, weatherstripping: Rigid metal frame type with silicone or rubber inserts. No vinyl inserts. No adhesive attachment of gasketing.*
- I. *Thresholds:* At residential room, suite, or apartment entry doors, bumper type low profile thresholds are required to eliminate the use of coat hangars and similar devices to reach from under the door to the interior lever.
- J. *Metal Shelf Brackets: Aluminum supports and brackets by Knape & Vogt or equal.*
1. *Wall Brackets: #187*

2. *Standards: #87; provide 6 standards per bracket.*

3. *Shelf rests: #211*

III. EXECUTION

- A. Fit hardware prior to painting, then remove for painting of doors and frames before final installation of hardware.
- B. *No field alterations by grinding or filing of hardware without specific written approval of the manufacturer.*
- C. Exterior Thresholds: Set in bed of single component polyurethane sealant.

IV. FINAL INSPECTION

- A. Project Manager and Campus Locksmith shall inspect all hardware prior to punch list.